

WHAT IS CLAIMED IS:

- 1 1. An exercise device for leg exercises, the device comprising:
2 a pair of foot pedals;
3 a pair of actuating rods connected to the foot pedals;
4 a bearing block having an aperture, the rods telescoping
5 through the aperture at a selectable actuation angle in response to pressure applied
6 to the foot pedals;
7 a crossbar extending between arched base bars upon which the
8 bearing block is secured; and
9 at least one resistive element attached between the rod and
10 bearing block to provide resistance to pressure applied to the foot pedals
- 1 2. The device of claim 1, wherein the selectable incident angle
2 is selected at an angle that causes a force centerline of the rods to projected between
3 endpoints of the base bars to limit tipping.
- 1 3. The device of claim 1, wherein a position of the crossbar
2 along the arch of the base bars is based on an interaction of crossbar position and
3 actuation angle to provide a maximum incident angle of the base bars to ground.
- 1 4. The device of claim 1, wherein the resistive element is a
2 rubber band.
- 1 5. The device of claim 1, wherein the resistive element is a
2 spring.
- 1 6. The device of claim 1, wherein the resistive element is a
2 pneumatic cylinder.
- 1 7. The device of claim 1, wherein the resistive element is a
2 hydraulic cylinder.

1 8. The device of claim 1, further comprising an attachment
2 bracket securing to a swivel bar of the foot pedals to connect the foot pedals to the
3 actuating rods.

1 9. The device of claim 1, wherein the rods include a fastener for
2 limiting the stroke of the actuating rods.

1 10. The device of claim 1, wherein the foot pedals include a strap
2 for securing the pedals to feet of an operator.

1 11. The device of claim 1, wherein the bearing block is attached
2 to the crossbar by a fastener that is adjusted to space apart the bearing block and to
3 select the actuation angle.

1 12. The device of claim 11, wherein the crossbar includes end
2 fasteners for position the crossbar along the arched base bar so that an incident angle
3 can be controlled to limit slippage.

1 13. The device of claim 12, further comprising grippers at each
2 end of the base bars to limit slippage.

1 14. The device of claim 13, wherein the grippers are rubber.

1 15. The device of claim 1, wherein the base bars only contact
2 ground at endpoints of the based bars.

1 16. An exercise device for operation only from a seated position,
2 the device comprising:

3 a pair of base bars constructed like an arch and spaced apart
4 from each other by a crossbar, only each ends of the base bars contact ground;
5 at least one bearing block secured to the crossbar by a
6 fastening collar, the bearing block being locatable along the crossbar and rotatable

7 around the crossbar for selecting a desired spacing and actuation angle of the
 8 bearing block; and
 9 a banded resistive element connect to the bearing block and
 10 a rod for providing resistance to the telescoping of the rod into and out of the
 11 aperture of the bearing block in response to a user depressing a foot pedal connected
 12 to the rod from a seated position.

1 17. The device of claim 16, wherein a position of the crossbar
 2 along the arch of the base bars is based on an interaction of crossbar position and
 3 actuation angle to provide a maximum incident angle of the base bars to ground to
 4 limit slippage and to insure a force centerline of the rods projects between endpoints
 5 of the base bars to limit tipping

1 18. A device for exercising the legs while in a seated position
 2 comprising, in combination:
 3 a frame for resting on the floor in front of a person in a seated
 4 position;
 5 a pair of foot pedals;
 6 a pair of actuating rods with one pedal mounted on the end of
 7 each rod;
 8 a bearing block carried by the frame and supporting each rod
 9 for reciprocating movement in a direction lengthwise of the rod when a person in
 10 a seated position pushes with their feet against said pedals; and
 11 a resistive element connected between each rod and its bearing
 12 block to provide resistance to foot pressure applied to the pedals tending to shift the
 13 rod lengthwise against the resistance of the resistive element.

1 19. The device of claim 18, wherein the bearing block includes
 2 an aperture, the rods telescoping through the aperture at a selectable actuation angle
 3 in response to the foot pressure applied to the pedals.

1 20. The device of claim 19, wherein the actuation angle is selected
 2 so that a force centerline intersects ground between end points of the frame.

1 21. The device of claim 20, wherein the resistive element is a
2 rubber band.

1 22. The device of claim 18, wherein the resistive element is a
2 spring.

1 23. The device of claim 18, wherein the resistive element is a
2 pneumatic cylinder.

1 24. The device of claim 18, wherein the resistive element is a
2 hydraulic cylinder.